TRAINING DELIVERY METHOD

Instructor-led remote or onsite training sessions via NVIDIA Academy WebEx platform, including access to hands-on environment.

TARGET AUDIENCE

This course is designed for network administrators and engineers who wish to learn how to install, configure, manage, monitor and troubleshoot Cumulus Linux based switches.

TRAINING DURATION

Remote: 5 sessions of 4 hours + 1 optional session of Introduction to networking.
Onsite: 4-days

TRAINING OUTLINE

Cumulus Linux Overview
• Open Ethernet Overview
• What is Cumulus Linux?
• Cumulus Linux Architecture

• Cumulus Linux Initial Setup
  • Installing a New Cumulus Linux Image
  • Upgrading Cumulus Linux
  • Initial switch configuration
  • Network Command Line Utility
  • Interface Configuration and Management
  • Automating Initial Configuration with Zero Touch Provisioning – ZTP

• Layer Two
  • Ethernet Bridging – VLANs and Trunking
    • Ethernet Bridging – VLANs and Trunking Workshop
  • Spanning Tree and Rapid Spanning Tree – STP
  • Link Aggregation – LAG (Bonding)
  • Multi-Chassis Link Aggregation – MLAG
    • MLAG Workshop
Layer Three
  - FRR Overview
  - BGP
    - BGP in the Datacenter
    - Equal Cost Multipath Load Sharing - Hardware ECMP overview
    - BGP Unnumbered Overview
    - BGP Unnumbered Workshop
  - VRFs
    - VRF Overview
    - FRR Operation in a VRF
    - Configuring VRFs

Network Virtualization with VXLAN Workshop
  - VXLAN Overview
  - EVPN
    - EVPN Workshops
  - VXLAN Routing Modes
    - VXLAN Asymmetric Routing Workshop
    - VXLAN Symmetric Routing Workshop

Automation and monitoring with SNMP, Ansible and NetQ
  - Network Troubleshooting
  - SNMP/SYSLOG
  - Ansible
    - Overview
    - Playbooks structure
    - Playbooks configuration
  - NetQ Overview
    - NetQ Deployments Models
    - NetQ Components and Operation
    - NetQ Events and Notifications
  - NetQ User Interface Overview
    - NetQ CLI and WebUI
    - Searches, Workbenches, Cards, Topology, Rules, Snapshots
  - Monitor Operations
    - Monitor Inventory
INTRODUCTION TO NETWORKING
Optional session training to align knowledge gaps

- Network topologies
  - Network topology
  - Modular Data Center design
  - Leaf-Spine design
  - Fat-Tree design

- TCP/IP Protocol Suite
  - Application Layer Protocols
  - HTTP/DNS/FTP
  - Transport layer protocols
  - TCP/UDP
  - Network layer protocols
  - IPv4
  - IPv4 addressing
  - Subnetting IPv4 networks
  - IPv4 services: ARP, ICMP, DHCP

- Ethernet technologies
  - Ethernet evolution
  - Ethernet frame structure and MTU
  - MAC addresses and MAC address tables
  - Ethernet switches